

CA1
MT 76
- A66



3 1761 11637723 5

NATIONAL ENERGY BOARD REASONS FOR DECISION

In the Matter of the Application Under
Part IV of the National Energy Board Act
(Rates Application)
of

TransCanada PipeLines Limited

July 1979

NATIONAL ENERGY BOARD

REASONS FOR DECISION

In the Matter of the Application under
Part IV of the National Energy Board Act

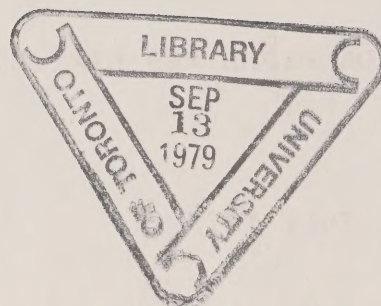
(Rates Application)

of

TRANSCANADA PIPELINES LIMITED

July 1979

Ce rapport est publié
séparément dans les
deux langues officielles.



IN THE MATTER OF an application by
TransCanada PipeLines Limited for Orders
pursuant to Sections 50 and 53 of the
National Energy Board Act.

File: 1562-T1-12.

HEARD at Ottawa, Ontario on:

15, 16, 17, 18, 23, 24 and 25 May;
4, 5, 6, 7 and 8 June 1979.

BEFORE:

L.M. Thur
J. Farmer
J.R. Hardie

Presiding Member
Member
Member

APPEARANCES:

J.H. Francis, Q.C.	)	TransCanada PipeLines Limited
M.A. Brown)	
M.M. Peterson	)	Gaz Métropolitain, inc.
P.F. Sculley	)	Greater Winnipeg Gas Company
	)	Northern and Central Gas Corporation Limited
K.D. Wellman	)	Saskatchewan Power Corporation
R.E. Petrich)	
J.H. Farrell	)	The Consumers' Gas Company
J.W. McOuat, Q.C.	)	Union Gas Limited
J.B. Ballem, Q.C.	)	Canadian Petroleum Association
A.E. Potter	)	Independent Petroleum Association of Canada
R.B. Low	)	Consolidated Natural Gas Limited
H.A. Ferguson	)	Dow Chemical of Canada, Limited

(ii)

G.V. Kenda	)	Norcen Energy Resources Limited
A. Kainz	)	Great Lakes Gas Transmission Company
J. Hopwood, Q.C.	)	The Alberta Gas Trunk Line Company Limited
P.C. Thompson	)	Industrial Gas Users Association
J. Bogue	)	Minister of Energy for Ontario
D.Houde	)	Procureur Général du Québec
P.G. Griffin	)	National Energy Board

TABLE OF CONTENTSPAGE

Recitals and Appearances	(i)
Table of Contents	(iii)
Abbreviations	(iv)
APPLICATION	1-1
RATE BASE	2-1
RATE OF RETURN	3-1
ALLOWABLE COST OF SERVICE	4-1
RATE DESIGN AND OTHER TARIFF MATTERS	5-1
DISPOSITION	6-1

APPENDICES

I	-	Hearing Order RH-1-79
II	-	Order No. TG-2-79
III	-	Order No. TG-3-79
IV	-	Comparison of Components of Rate of Return and Interest Coverage Previously Authorized, Applied for, and Approved.
V	-	Functional Distribution and Classification of Authorized Cost of Service.
VI	-	Derivation of the Imputed Alberta Border Price.
VII	-	Board Letter re Retirement of Corroded Pipe.

ABBREVIATIONS OF NAMES

Consolidated Natural Gas Limited	"Consolidated"
Gaz Métropolitain, inc.	"Gaz Métro"
Great Lakes Gas Transmission Company	"Great Lakes"
National Energy Board	"the Board"
National Energy Board Act	"NEB Act"
Petroleum Administration Act	"PAA"
Saskatchewan Power Corporation	"Saskatchewan Power"
TransCanada PipeLines Limited	"TransCanada" "the Company" or "the Applicant"

ABBREVIATIONS OF TERMS

<u>Term</u>	<u>Abbreviation</u>
Annual Contract Quantity	"ACQ"
Authorized Overrun Interruptible	"AOI"
Billion cubic feet	"Bcf"
British thermal unit	"Btu"
Contract Demand	"CD"
Gigajoule	"GJ"
Mainline Valve	"MLV"
Megajoules per cubic metre	"MJ/m ³ "
Million Btu	"MMBtu"
Million cubic metres	"10 ⁶ m ³ "
Peaking Service	"PS"
Small General Service	"SGS"
Temporary Winter Service	"TWS"
Thousand cubic feet	"Mcf"
Thousand cubic metres	"10 ³ m ³ "

THE APPLICATION

By an application dated 28 February 1979, TransCanada PipeLines Limited ("the Applicant", "the Company" or "TransCanada") applied to the National Energy Board ("the Board") under Sections 50 and 53 of the National Energy Board Act ("NEB Act") for orders fixing the just and reasonable rates or tolls TransCanada may charge for or in respect of gas sold by it in Canada and for transportation services to Saskatchewan Power Corporation ("Saskatchewan Power"), Consolidated Natural Gas Limited ("Consolidated") and Gaz Métropolitain, inc. ("Gaz Métro"), and disallowing any existing tariffs or rates or tolls or portion thereof that are inconsistent with the just and reasonable rates or tolls so fixed, effective 1 August 1979.

The Applicant also applied under Section 53 of the Petroleum Administration Act ("PAA") and Regulations pursuant to Part III thereof, for Special and General Orders of the Board approving the price to be paid by the Applicant to acquire gas for removal from the Province of Alberta, and revoking any previous orders inconsistent therewith, effective 1 August 1979.

The rates and tolls proposed in the application are based on a cost of service employing a base period of the 12 months ending 30 September 1978 and a test period of the 12 months commencing on 1 August 1979. In preparing its application, TransCanada projected a change in the Toronto

reference price for natural gas from 186.406 cents per GJ (\$2.00 per MMBtu) to 200.386 cents per GJ (\$2.15 per MMBtu), effective 1 August 1979. The applied for cost of service included a rate of return on rate base of 11.22 percent, an increase from the rate of return of 10.75 percent authorized by the Board effective 1 August 1978.

The Company also requested in its application that the Board make certain additional Orders for accounting and rate-making purposes:

1. The Applicant currently includes in its cost of service an allowance for lost and unaccounted for gas. TransCanada applied for an Order permitting it to segregate and record variances in the cost for the actual quantities of lost and unaccounted for gas from those reflected in rates. The Applicant has proposed that carrying charges, at a simple annual interest rate equal to the prime rate plus one percent, be added to the balance of the variance at the end of each month. The balance of accrued variances, including interest, would then be amortized from time to time through adjustments in future rates.
2. On 20 October 1978, the Board prescribed accounting procedures for the revaluation of inventories of gas owned by the Applicant and stored in underground storage in Ontario, whenever a new "imputed Alberta border price"* is established. Under this procedure, the Board ordered that any future revaluation credits arising from Alberta border

* As defined in the Natural Gas Prices Regulations, SOR/75-630, as amended.

price increases be recorded in a deferral account for disposition in future rate proceedings. TransCanada has requested that this accounting order be modified to permit the deduction of storage charges and carrying charges computed monthly at a simple annual interest rate equal to the prime rate plus one percent on the value of the monthly inventory in storage from any such revaluation credits with the net credit, if any, to be disposed of in future rate proceedings.

3. TransCanada paid income taxes for the first time in respect of its 1978 income, and the Company anticipates the possibility of a reassessment by the Department of National Revenue, Taxation in respect of the income taxes payable for the 1978 and prior years. A reassessment could result in additional taxes being payable by the Applicant, which additional taxes must be paid pending any appeal of the reassessment. TransCanada takes the position that neither the amount nor the timing of any reassessment can be predicted. The Applicant has requested that the Board, by an order for accounting and rate-making purposes, allow the Company to account for the amount on any disputed reassessment in a deferral account with relating carrying charges on the deferred amount computed monthly at a simple interest rate equal to the prime rate plus one percent. TransCanada proposed that once the amount and status of a reassessment had been finalized,

the deferred amounts would be amortized from time to time through adjustments in future rates.

During the course of the hearing of TransCanada's application, a motion was made on behalf of Gaz Métro for an order requiring the Applicant to undertake various comprehensive studies concerning the allocation of costs for the purposes of rate design. Gaz Métro requested that, at such time as the studies were prepared, the Board conduct an inquiry to review the studies and to determine the proper method of cost allocation. Gaz Métro further requested that the Board make an order to vary the rates and tolls charged by TransCanada so as to implement such proper method of cost allocation determined as a result of the proposed inquiry. The Gaz Métro motion is dealt with in the section of these Reasons for Decision dealing with rate design and other tariff matters.

RATE BASE

TransCanada's proposed rate base was submitted as being the average projected utility investment (exclusive of investment in Alberta) for the test period 1 August 1979 to 31 July 1980. The Board has adjusted the rate base for the reasons indicated in this Chapter, as follows:

RATE BASE

	<u>Application As Filed</u>	<u>Application⁽¹⁾ As Revised</u>	<u>NEB Adjustments</u>	<u>Authorized by NEB</u>
Gross Plant	\$1,798,931,073	\$1,799,169,037	\$(18,393,843)	\$1,780,775,194
Accumulated Depreciation	(450,296,081)	(452,599,388)	348,838	(452,250,550)
Contributions in aid of Construction	<u>(2,019,332)</u>	<u>(2,019,332)</u>	<u>-</u>	<u>(2,019,332)</u>
Net Gas Plant	\$1,346,615,660	\$1,344,550,317	\$(18,045,005)	\$1,326,505,312
Working Capital	39,563,800	39,431,306	312,314	39,743,620
Average Deferred Income Taxes	(12,075,660)	(12,702,857)	(24,272)	(12,727,129)
Other Deferred Costs	<u>2,337,798</u>	<u>4,026,401</u>	<u>(1,341,315)</u>	<u>2,685,086</u>
Total Rate Base	<u>\$1,376,441,598</u>	<u>\$1,375,305,167</u>	<u>\$(19,098,278)</u>	<u>\$1,356,206,889</u>

Notes: (1) This column incorporates revisions to the application made by TransCanada based on matters raised in the course of the hearing.

Gross Plant

TransCanada projected its gross plant for the test year to be \$1,799,169,037. The Board has adjusted this to \$1,780,775,194 - a reduction of \$18,393,843 as shown:

	<u>NEB Adjustments</u>
Rerating Costs	(\$ 5,944,802)
Electronic Pigging and Associated Pipe Replacements	(\$ 5,053,815)
Class "C" Additions	<u>(\$ 7,395,226)</u>
Total NEB Adjustment to Gross Plant	<u>(\$18,393,843)</u>

These adjustments are explained as follows:

(a) Rerating

In the course of the hearing, several Intervenors took the position that the costs of TransCanada's rerating programme between MLV 116 and 127 should not be included in the Company's rate base unless and until that section of the line is operating at the intended higher pressure.

With respect to the section of the pipeline between MLV 119 and 127, the Company revised its application to remove from the rate base some \$11,100,000 of pipe replacements which had not been approved by the Board. In addition, a further \$1,418,209 in rerating costs for that section were deducted from the rate base by TransCanada, since that section would not

be operating at the higher pressure in the test period. For the section of the pipeline between MLV 116 and 119, TransCanada had completed its rerating programme and filed an application with the Board to authorize operation at the higher pressure. The Applicant subsequently requested the Board to hold that application in abeyance pending the resolution of local concerns in the City of North Bay. TransCanada was unable to indicate when that application would be reactivated, but did indicate it expected to deal with the matter later in 1979.

In the Board's view, the costs of the rerating programme ought to be included in the rate base where the evidence shows a reasonable likelihood that the rerated facilities will be brought into service at the higher operating pressure during the test year. On the evidence presented, the Board is not satisfied that the section of pipeline between MLV 116 and 119 is likely to be operated at the higher pressure during the test period.

Accordingly, in addition to the adjustments made by the Applicant, the Board has further reduced the rate base by an amount of \$5,944,802, primarily in respect of hydrostatic testing and pipe replacements associated with the rerating programme between MLV 116 and 127.

(b) Electronic Pigging and Associated Pipe Replacements

The Applicant included in its rate base for the test period an amount of \$9,717,458 in respect of electronic pigging and associated pipe replacements. This amount is comprised of:

- (1) actual costs of \$4,366,913 incurred in the period from August 1978 to 30 April 1979, of which \$3,740,949 were estimated to have been incurred as part of TransCanada's rerating programme;
- (2) estimated costs of \$2,223,658 for the period from 1 May to 31 July 1979; and
- (3) estimated costs of \$3,126,887 for the test period.

The Company's rerating programme involves the sandblasting of pipe, pipe replacements and the retesting of the pipeline so as to return it to service at a higher operating pressure than that originally authorized when the pipeline was constructed. The effect of rerating is to increase the pipeline's operating capacity and to achieve savings in compressor fuel.

The Applicant's standard plant unit for pipe, under its property unit 627 approved by the Board, is a minimum of 40 feet; that is, pipe replacements of 40 feet or more are capitalized, whereas those under 40 feet are expensed in the period in which they occur. In connection with the rerating programme, TransCanada requested and the Board approved the

establishment of Company's property unit 627A to permit the capitalization of pipe replacements between 4 and 40 feet where those replacements occur in the course of rerating and retesting.

In prior rate cases, the Board has accepted that the rerating programme constitutes a capital improvement and that the costs of the programme should be included in the Applicant's rate base. Accordingly, the \$3,740,949 of electronic pigging and pipe replacement costs, which were estimated to have been incurred before 30 April 1979 as part of the rerating programme, and which were necessary to obtain authorization to operate at a higher pressure, should be included in the test year rate base.

The balance of the \$9,717,458 of pigging and pipe replacements were not, however, incurred by the Company as part of its rerating programme. In dealing with these pigging and pipe replacement costs, the principal issue is whether these costs are maintenance expenses, as the Board ruled in September 1978, or capital expenditures as advocated by TransCanada.

In August 1978, before undertaking for the first time electronic pigging and pipe replacements unassociated with rerating, TransCanada requested the Board to approve the use of property unit 627A for these pipe replacements. The Applicant also sought approval of these expenditures as Class "C" Construction items. In September 1978, the Board advised TransCanada that:

- (1) the use of property unit 627A for these pipe replacements was not acceptable and the property unit 627 was the appropriate plant unit, and
- (2) electronic pigging and associated pipe replacements were considered to be maintenance expenses and thus not within the class of matters requiring an order under section 49 of the NEB Act.

In December 1978, TransCanada requested the Board to reconsider its September 1978 rulings. In February 1979, the Board excluded the electronic pigging and pipe replacements from its section 49 order in relation to the Company's 1979 Class "C" Construction programme on the basis that those items were maintenance expenses. In May 1979, as a result of a further request by the Company to consider its December 1978 submission, the Board directed TransCanada to include the pigging and pipe replacement costs to 31 July 1979 in a deferral account, and to bring the issue before the Board for disposition in this rate case.

In support of its contention that pigging and pipe replacements unassociated with rerating are capital expenditures, TransCanada submitted that these expenditures resulted in the pipeline being in a better and safer condition than when originally built by correcting defects which occurred in the course of construction. In addition, the Applicant

argued that the electronic pig itself resulted from technological improvements which were not available when the pipeline was constructed. In support of its position, the Company stated that property unit 627A was applicable to these pipe replacements. TransCanada did concede, however, that if the pigging inspection uncovered pipe defects which arose subsequent to construction, the repair of those defects would be a maintenance item.

The Board is unable to accept TransCanada's argument that electronic pigging and pipe replacements unassociated with rerating are capital improvements. These expenditures do not result in any improvement or betterment of the pipeline over what it was intended to be when originally designed and constructed. The fact that the electronic pig is a technological improvement which did not exist when the pipeline was constructed, while it may be an argument for capitalizing the development costs of the pig, adds nothing to the Company's argument. Once a pipeline is in operation, there should be no distinction in the treatment of costs incurred in repairing pipe defects, whether they arise from the construction of the pipeline or from its operation.

The Board also concludes that property unit 627A is not applicable to pipe replacements unassociated with rerating. That property unit applies to pipe replacements occurring in the rerating and retesting of the pipeline. The inspection of a pipeline by means of the electronic pig and the repair of defects so found, is not rerating and retesting.

In the Board's view, the costs of pigging and pipe replacements unassociated with rerating are maintenance expenses. Accordingly, the Board has reduced the test year rate base by \$5,053,815, being those costs actually incurred to 31 July 1979 and the weighted average of the test year additions.

In May 1979, the Board directed the Applicant to include its unrecovered pigging and pipe replacement costs in a deferral account.

It has not been the Board's practice to allow deferral accounts to be used retroactively for rate-making purposes. Deferral account treatment has only been applied to costs arising subsequent to the time a deferral has been authorized by the Board. Accordingly, the deferral authorized on 4 May 1979 should only apply to the \$2,223,658 of costs to be incurred between 1 May and 31 July 1979, so as to permit the inclusion of that amount in the test year cost of service as a miscellaneous deferred item. The Board has included the \$3,126,887 of pigging and pipe replacement costs forecast to be incurred in the test period in the operation and maintenance expense for that year.

(c) Class "C" Additions

TransCanada included an amount of \$134,236,043 for additions to transmission plant in its rate base for the test year. Of this amount, \$69,536,184 represents Class "C" Construction items, other than rerating, electronic pigging and associated pipe replacements for the period 30 September 1978 to 31 December 1979, and \$7,157,000 represents Class "C" Construction items forecast to be placed in service during the latter part of the test year in 1980.

The 1978-79 Class "C" Construction items, as originally filed, included an item for three regenerators at compressor stations 5, 9 and 17A, which were forecast to cost \$1 million each. During the hearing, the Applicant indicated that it only intended to install regenerators at stations 5 and 9, and the cost of the regenerators had increased to \$1.44 million each. As a result of these revisions, the Board has reduced the Applicant's revised additions to plant in service by \$119,113. (This requires a reduction of \$238,226 to gross plant in service shown in Exhibit 6A due to a calculation error in that exhibit.)

In the Board's view, additions to plant in service should only be included in the rate base for the test period if those additions have been approved by the Board under Part III of the NEB Act. Since no approval for the 1980 Class "C" Construction has been given by the Board and no application has been filed as yet by TransCanada for such approval, the Board has disallowed the inclusion of \$7,157,000 in the test period rate base on account of that construction.

Accumulated Depreciation

TransCanada projected its average accumulated depreciation for the test year to be \$452,599,388. This amount has been reduced by \$348,838 as shown:

Reduced Average Gross Plant	\$468,861
Corroded Pipe	<u>(120,023)</u>
Net Adjustment to Average Accumulated Depreciation	<u>\$348,838</u>

The NEB adjustments are explained as follows:

(a) Reduced Average Gross Plant

The Board, having reduced average gross plant by \$18,393,843, has, accordingly, reduced average accumulated depreciation by \$468,861.

(b) Corroded Pipe

During 1978, TransCanada replaced some 851 metres of large diameter pipe between MLV 57 and 58 because of excessive corrosion of the original pipe. This corrosion occurred because the polarity of the rectifier providing cathodic protection to that section of the pipeline had been inadvertently reversed by a Company employee when repairs were made to that section of the pipeline in 1977. In a report made to the Board in November 1978, TransCanada indicated that a number of steps had been undertaken to prevent the recurrence

of this type of incident, which steps included the colour coding of all cable leads and the periodic verifying of rectifier and groundbed polarity. During the hearing, the Applicant acknowledged that these procedures were not only reasonable, but that most of them were in effect prior to November 1978, although not necessarily followed at the time the corrosion occurred between MLV 57 and 58.

In its application, the Company proposed to treat the \$718,478 cost of the replacement pipe as an addition to its rate base for the test period. The original corroded pipe, which has a historical cost of \$149,885 and accumulated depreciation of \$29,862, was treated by the Applicant as an ordinary plant retirement. The effect of this treatment is that TransCanada would recover all of the costs associated with the corrosion incident in its rates.

On review of the evidence, the Board is satisfied that this occurrence resulted not just from employee inadvertence, but also from a failure by the Company to carry out its established and reasonable procedures designed to prevent such an incident. By reason of this second feature, the Company should bear some of the financial consequences of this incident. The Board concludes that while the cost of the replacement pipe is correctly included in the rate base, the cost of the original corroded pipe should be treated as an extraordinary retirement, and directs that the loss on the premature retirement of the original pipe not be recovered by

the Applicant in its cost of service. The appropriate accounting direction to the Company is set forth in Appendix VII to these Reasons and is reflected in an adjustment to the accumulated depreciation.

Working Capital

The Applicant included \$39,431,306, as revised, in rate base for working capital. The procedure used by the Company to determine this amount is consistent with that used in previous rate applications and approved by the Board. The cash working capital was calculated as being equivalent to one-eighth of the annual operation and maintenance expense after deducting fuel costs, miscellaneous gas usage costs and certain non-cash items. Total working capital was then determined by adding the average value for the test year of transmission line pack, prepayments and materials and supplies.

An Intervenor questioned TransCanada's inclusion of working capital and argued that working capital, as shown by the Applicant's published financial statements, was in a "negative condition". The Intervenor concluded that such a situation did not warrant any working capital in rate base because the Applicant's investors were not required to provide funds for that purpose.

The Board has reviewed the procedure used by TransCanada and the make-up of its working capital as shown in its published financial statements and in the information filed with the Board. In these circumstances, the Board finds no reason to depart from the method approved in previous TransCanada rate cases.

Following is a summary of the authorized working capital, as adjusted.

	<u>Application As Revised</u>	<u>NEB Adjustments</u>	<u>Authorized by NEB</u>
Cash	\$ 7,805,688	(\$ 26,839)	\$ 7,778,849
Materials and Supplies	14,353,469	-	14,353,469
Transmission Line Pack	16,751,166	339,153	17,090,319
Prepayments and Deposits	<u>520,983</u>	<u>-</u>	<u>520,983</u>
	<u>\$39,431,306</u>	<u>\$312,314</u>	<u>\$39,743,620</u>

Adjustments made by the Board are explained as follows:

(a) Cash

The adjustment to cash of (\$26,839) reflects one-eighth of certain adjustments to operation and maintenance expense in Chapter 4, as follows:

Reduction of Wages and Benefits	(\$2,837,230)
Reduction of General Expense	(504,368)
Inclusion of Electronic Pigging and Associated Pipe Replacements	<u>3,126,887</u>
	<u>(\$ 214,711)</u>
Adjustment: 1/8 of (\$214,711)	<u>(\$ 26,839)</u>

(b) Transmission Line Pack

The Applicant projected the average value of transmission line pack to be \$16,751,166 during the test year based on an imputed Alberta border price of 138.493¢/GJ as revised during the hearing by TransCanada.

The Board has adjusted transmission line pack to reflect the new imputed Alberta border price of 141.297¢/GJ resulting in an increase of \$339,153. The derivation of the new imputed Alberta border price is shown in Appendix VI.

Average Deferred Income Taxes

The amount of average deferred income taxes deducted from rate base is \$12,727,129. The calculation of this amount is shown in the Income Taxes section of Chapter 4 of these Reasons for Decision.

Other Deferred Costs

In its Reasons for Decision of July 1978, the Board permitted the inclusion in TransCanada's rates of an amount of \$68,341,480 on account of current normalized income taxes. After re-examining the derivation of that amount, the Board, in an addendum to those Reasons, increased the provision for current normalized income taxes by \$2,580,602 and ordered TransCanada to record monthly in a deferral account, one-twelfth of that amount plus carrying costs equal to one-twelfth of the prime commercial bank rate plus one percent. (See Order Nos. AO-1-TG-2-78 and AO-2-TG-2-78.)

In its current application, the Company has included the balance of the deferred amount plus carrying charges in its cost of service and, in addition, has included the average unamortized balance of \$1,341,315 in its rate base for the test year. TransCanada supports the latter inclusion on the grounds that it is consistent with the Board's treatment of other deferred amounts.

The deferred amount represents income taxes and constitutes a proper charge for inclusion in cost of service. The Board had deferred rate-making treatment of this amount for one year and TransCanada was compensated by the allowance of carrying charges during the delay. While inclusion of the deferred amount plus carrying charges in the test year cost of service is correct, the Board disallows the inclusion in rate base of the average unamortized balance, in accordance with the rate-making treatment of test year income taxes.

RATE OF RETURNCapital Structure

The Applicant submitted the following average consolidated capitalization for the test year ending 31 July 1980:

	<u>Amount</u>	<u>Ratio</u>	<u>Cost Rate</u>	<u>Cost Component</u>
	(\$000)	%	%	%
Funded Debt - Other	737,285	42.28	8.72	3.69
- Take or Pay	271,969	15.60	11.22	1.75
Unfunded Debt	<u>40,461</u>	<u>2.32</u>	11.50	<u>.27</u>
Total Debt Capital	1,049,715	60.20	9.48	5.71
Preferred Share Capital	87,034	4.99	7.61	.38
Common Equity Capital	<u>607,141</u>	<u>34.81</u>	14.75	<u>5.13</u>
	<u>1,743,890</u>	<u>100.00</u>		<u>11.22</u>

(a) Take or Pay Debt

During the course of the hearing, the nature of the debt incurred as a consequence of the Applicant's take or pay obligations, in comparison with the other funded debt in its capital structure, was examined. The evidence showed that the take or pay funds are not employed in the financing of pipeline assets and that the related interest costs are recovered through the Alberta cost of service. In connection with the matter of repayment, the Applicant has, in its 1978 Annual Report to

Shareholders, stated that, based on its current supply estimates and market forecasts, all gas that it will be required to pay for in advance will be taken within the time periods specified in the gas purchase contracts.

Having regard to the distinct circumstances of these obligations as compared with the Applicant's other funded debt, the Board has determined that they be excluded from the capital structure.

(b) Investment in Great Lakes Gas Transmission Company

The applied for consolidated capitalization reflects the Applicant's investment in Great Lakes Gas Transmission Company ("Great Lakes"). The amount of this investment on the equity accounting basis was estimated by the Applicant to be an average of approximately \$43 million in the test year.

In determining whether the consolidated capitalization of a company is acceptable in computing a weighted average cost of capital for rate-making purposes, the Board examines the relationship that capitalization has to the assets against which the cost rate will be applied.

The corporate relationship which exists between the Applicant and Great Lakes arose out of unique historical, economic and political conditions. While the Applicant's investment in Great Lakes is not reflected in its rate base, the fact remains that the Great Lakes system is an integral part of the existing overall transmission system used to move gas from western Canada to eastern Canadian markets. Accordingly, the

Board has determined that the capital funds associated with the investment in Great Lakes should continue to be included in the capital structure of TransCanada for rate-making purposes.

Cost of Debt

The Applicant submitted that the outstanding average amounts of its funded and unfunded debt, other than that associated with its take or pay obligations, would be \$737,285,000 and \$40,461,000 respectively during the test year. The cost rates applied to these amounts of 8.72 percent and 11.5 percent have been accepted by the Board. As a result of the reduced equity return and increased deferred taxes allowed in this decision, the Applicant's estimate of average unfunded debt has been adjusted upwards to \$43,678,000. Consequently, the Board has determined the overall cost of debt to be 8.88 percent for the test year as calculated below.

EMBEDDED COST OF DEBT
FOR THE TEST YEAR ENDING JULY 31, 1980

	AVERAGE PRINCIPAL OUTSTANDING (\$000)	FINANCIAL CHARGES (\$000)
<u>FIRST MORTGAGE PIPE LINE BONDS</u>		
5-3/4% due 1983 (U.S.)	20,278	1,166
6-1/4% due 1983	9,758	610
5-1/8% due 1985 (U.S.)	13,206	677
6-5/8% due 1987 (U.S.)	54,868	3,635
8-3/4% Series A due 1992	71,045	6,216
8-3/4% Series B due 1992	29,231	2,558
8-3/8% Series A due 1993	49,255	4,125
8-3/8% Series B due 1993	7,782	652
	<u>255,423</u>	<u>19,639</u>
<u>SINKING FUND DEBENTURES</u>		
10% Series A due 1990	40,201	4,020
9-3/4% Series B due 1990	48,585	4,737
9% Series C due 1991	40,411	3,637
8-7/8% Series D due 1992	83,301	7,393
9% Series E due 1993	86,113	7,750
11-1/2% Series F due 1995	50,000	5,750
9.60% Series G due 1997	71,250	6,840
	<u>419,861</u>	<u>40,127</u>
<u>BANK LOANS</u>		
due 1981	<u>15,385</u>	<u>1,769</u>
<u>SUBORDINATED DEBENTURES</u>		
5.85% due 1987	34,161	1,998
5.60% due 1987 (U.S.)	12,455	698
	<u>46,616</u>	<u>2,696</u>
	737,285	64,231
Amortization of Debt Discount and Expense		1,494
Gain on Sinking Fund Redemptions		(2,762)
Foreign Exchange on Interest Expense		741
Foreign Exchange on Redemptions		602
<u>FUNDED DEBT - OTHER THAN TAKE OR PAY</u>	737,285	64,306
<u>UNFUNDED DEBT (11.5%)</u>	<u>43,678</u>	<u>5,023</u>
TOTAL	<u>780,963</u>	<u>69,329</u>
EMBEDDED COST OF DEBT		8.88%

Cost of Preferred Equity

The Board accepts the Applicant's cost rate for preferred equity of 7.61 percent in the test year.

Rate of Return on Common Equity

In the current application, a return of 14.75 percent on an equity component of 34.81 percent was requested as compared with the Company's current allowed return of 14.2 percent on an equity component of 37.75 percent. The exclusion of the take or pay debt from the capital structure and the adjustment of the unfunded debt results in an equity component of 41.03 percent.

The determination of a fair and reasonable return on common equity involves the use of methods which are, of necessity, indirect and subject to the exercise of judgement.

The Applicant's witnesses testified that their recommended common equity returns were based on several approaches which included an appraisal of the Applicant's investment risk, the application of comparable earnings - financial integrity tests and a capital attraction test. Also examined was the relationship between utility equity returns and those yields available on fixed income securities.

The Applicant's investment risk was appraised in terms of the business and financial risks confronting TransCanada's shareholders. The business risks examined fell into the categories of regulatory, supply and demand risks.

Regulatory risk relates to the possibility of common equity investors not realizing the allowed rate of return due to the attrition of earnings by inflation and other factors such as variances in the foreign exchange rate affecting U.S. denominated debt. The Company's witnesses noted that this risk was minimal and unchanged since the Board's Decision of July 1978, because of the use of a forward test year and the allowance of deferral accounts for items such as foreign exchange costs. The risk associated with supply was noted by these witnesses as being basically unchanged since the Board's last decision. With respect to demand risk, the Applicant has stated that, based on its current forecasts, all the gas that TransCanada will be required to pay for in advance will be taken within the time periods specified in various gas purchase contracts.

Financial risk varies inversely with the percentage of the common equity in a company's capital structure. The common equity component relative to those of debt and preferred share capital, which have senior claims to earnings, is indicative of the risk that the residual earnings available to the common shareholder may or may not be sufficient to provide for the allowed rate of return.

As noted previously in this decision, the inclusion by the Applicant of its take or pay related debt resulted in a common equity component of 34.81 percent as compared with the 37.75 percent component allowed in the Board's previous decision.

The Board's exclusion of this debt from the capital structure, together with its upward adjustment of unfunded debt, results in a common equity component of 41.03 percent. The interest costs of the take or pay debt are recovered in TransCanada's Alberta cost of service and the Company has stated that it expects to take all the gas that it will be required to pay for in advance within the time periods specified in the gas purchase contracts. Also, one of the Applicant's expert witnesses expressed the opinion that, were these obligations ever to be such as to jeopardize the Company, means would be found in Canada to alleviate that burden. Having regard to this evidence, the Board concludes that the 41.03 percent equity ratio more accurately portrays the risks faced by the common shareholder than the applied for 34.81 percent.

In the application of the comparable earnings test, the Applicant's witnesses examined the earnings of various conservative industrial companies with which utilities compete for funds in the capital market. These witnesses estimated that the returns on average common equity for these industrials would lie in the range of 14.5 - 16.0 percent during the 1979-80 test period as compared with the range of 14.0 - 15.0 percent previously forecasted for the 1978-79 test period. However, it was also recognized by the Applicant's witnesses that conservative industrial companies face greater business risks than does TransCanada.

The Applicant's witnesses testified that a comparative analysis of market-to-book ratios provides a necessary perspective in the determination of a reasonable return on common equity, although the relationship between market-to-book values and equity returns is imprecise because market prices reflect factors other than return. The Applicant's witnesses felt that market-to-book ratios in the 115 - 130 percent range were necessary in order to provide for the financial integrity of TransCanada's common equity. At present, the Applicant's market-to-book ratio exceeds this range.

The various expert witnesses also employed a capital attraction test (or Discounted Cash Flow formula) to infer the rate of return which investors would require in order to commit new equity capital to the Company. The application of this formula involves the use of considerable judgement because of the limitations imposed upon it by various exogenous factors such as those affecting the level of stock prices in general.

TransCanada's witnesses testified that a reasonable return on equity might also be inferred from the general relationship existing between the yields available on long term fixed income securities and those available on utility stocks. They noted here, as in their comparable earnings tests, that the yields of alternative investment opportunities represented by such securities have risen since 1978.

The Board has given careful consideration to the evidence presented, particularly that relating to the comparable earnings of Canadian industrials which it believes to be representative of reasonable alternative investment opportunities to the Applicant's shareholders. The Board agrees with the Applicant's witnesses that the business risks faced by TransCanada are somewhat less than those of typical conservative industrial companies. Also, the Board notes the evidence presented with respect to regulatory and supply risks and TransCanada's expectation that it will take, within the contractual time limits, all the gas that it will be required to pay for in advance. The Board, therefore, concludes that the Company's business risks have not increased since its last hearing.

The Board observes that, while the Company's business risks have not changed, the financial risk to its shareholders has decreased slightly since the last hearing by virtue of the increase in the allowed equity ratio from 37.75 to 41.03 percent. On balance, the Board finds that the overall risks confronting the common shareholder in TransCanada with respect to the operations subject to this Board, have diminished in magnitude, while the opportunity costs to this same class of investor have risen somewhat.

The Board concludes, therefore, that a return of 14.0 percent on the Applicant's common equity is fair and reasonable for the test year.

Rate of Return on Rate Base

Based on the fair and reasonable cost of debt, preferred and common equity capital and the adjusted capital structure reflecting the estimated increased unfunded debt, the overall cost of capital for TransCanada is 10.90 percent as computed hereunder.

	<u>Amount</u>	<u>Ratio</u>	<u>Cost Rate</u>	<u>Cost Component</u>
	(\$000)	%	%	%
Long Term Debt	737,285	50.09	8.72	4.37
Unfunded Debt	43,678	2.97	11.50	.34
Preferred Equity	87,034	5.91	7.61	.45
Common Equity	<u>603,900</u>	<u>41.03</u>	14.00	<u>5.74</u>
	<u>1,471,897</u>	<u>100.00</u>		<u>10.90</u>

The overall rate of return allowed in the previous Board Decision of July 1978 was 10.75 percent. That return provided for a pre-tax interest coverage* of 3.37 times. With an overall rate of return of 10.90 percent, the pre-tax interest coverage would be 3.3 times. The Board considers this coverage to be adequate at the present time.

* The pre-tax interest coverage is the ratio of return on rate base (operating income) plus normalized income taxes to interest expense.

ALLOWABLE COST OF SERVICE

TransCanada submitted its estimated cost of service for a test year commencing 1 August 1979 and revised its estimate during the course of the hearing.

A summary of the allowable cost of service for rate making purposes as authorized by the Board is shown below. Details of Board adjustments to cost of service (excluding return) are provided in this chapter. Details of Board adjustments to rate base and rate of return are provided in Chapters 2 and 3, respectively. Appendix V shows the functional distribution and classification of the allowable cost of service for rate-making purposes.

Allowable Cost of ServiceTest Year 1 August 1979 to 31 July 1980

	<u>Application As Filed</u>	<u>Application⁽¹⁾ As Revised</u>	<u>NEB Adjustments</u>	<u>Authorized by NEB</u>
Cost of Gas Sold ⁽²⁾	\$1,565,337,922	\$1,568,610,734	\$ 31,762,071	\$1,600,372,805
Transmission by Others	113,240,392	115,325,115	(8,177,113)	107,148,002
Operation and Maintenance	140,272,391	140,385,366	(4,717,654)	135,667,712
Depreciation	54,059,366	54,071,971	(552,618)	53,519,353
Taxes Other Than Income Taxes	15,327,917	14,999,545	-	14,999,545
Income Taxes	89,422,803	88,521,051	(8,218,018)	80,303,033
Miscellaneous Deferred Items	2,929,354	3,585,235	2,223,658	5,808,893
Other Operating Income	(3,588,314)	(3,593,377)	(33,390)	(3,626,767)
Miscellaneous Revenue	<u>(8,550,823)</u>	<u>(8,207,706)</u>	<u>-</u>	<u>(8,207,706)</u>
Total Cost of Service (Excluding Return)	\$1,968,451,008	\$1,973,697,934	\$ 12,286,936	\$1,985,984,870
Return @ 11.22%	154,436,747	154,309,240	(154,309,240)	-
Return @ 10.90%	<u>-</u>	<u>-</u>	<u>147,826,551</u>	<u>147,826,551</u>
Net Cost of Service	<u>\$2,122,887,755</u>	<u>\$2,128,007,174</u>	<u>\$ 5,804,247</u>	<u>\$2,133,811,421</u> ⁽³⁾

(1) This column incorporates revisions to the application made by TransCanada based on matters raised in the course of the hearing.

(2) Excludes Export flow-back.

(3) Equals allowable revenue from rates.

Cost of Gas Sold

The Board has determined the cost of gas sold for rate-making purposes to be \$1,600,372,805 for the test year, based on an imputed Alberta border price of 141.297¢/GJ, the calculation of which is shown in Appendix VI, and the projected sales volumes for rate-making purposes of 30,227.66 10⁶m³ at 37.47 MJ/m³.

The cost of gas approved for rate-making purposes does not include export flow-back in the test year. The export flow-back is the difference between the Applicant's higher cost for gas acquired in Alberta for export sales purposes, pursuant to an export pricing order under Section 53 of the PAA, and the imputed Alberta border price.

Transmission by Others

TransCanada projected its cost of transmission by others for the test year to be \$115,325,115. The Board has adjusted this to \$107,148,002, as shown in the following summary.

	<u>Application As Revised</u>	<u>NEB Adjustments</u>	<u>Authorized by NEB</u>
Great Lakes:			
(a) Basic Charges	\$120,099,372	-	\$120,099,372
(b) Fuel Adjustment	(12,937,461)	(\$8,169,440)	(21,106,901)
Union Gas	3,442,379	-	3,442,379
Deferral Adjustment	4,467,566	-	4,467,566
Saskatchewan Power	87,983	-	87,983
Steelman Gas	<u>165,276</u>	<u>(7,673)</u>	<u>157,603</u>
	<u>\$115,325,115</u>	<u>(\$8,177,113)</u>	<u>\$107,148,002</u>

The adjustments shown in the preceding summary are explained as follows:

(a) Great Lakes Fuel Adjustment

The Federal/Alberta natural gas pricing agreement provides that fuel used in the transmission of gas consumed in Canada through the Great Lakes system will be purchased by TransCanada at the imputed Alberta border price. Because such fuel is sold to Great Lakes at the export price, TransCanada receives revenues in excess of the costs allocated to such fuel, amounting to the excess of the export price over the sum of the imputed Alberta border price plus the transmission costs on its system from the Alberta border to the export point. To offset these excess revenues, an equal amount, referred to as the "Great Lakes Fuel Adjustment", is deducted from Transmission by Others in the cost of service.

The Board's adjustment of (\$8,169,440) for this item is required to take into account the net effect of the imputed Alberta border price of \$141.297¢/GJ, the transmission costs on TransCanada's system from the Alberta border to the export point at Emerson, Manitoba, and the increase in the price of natural gas exported from Canada to be effective 11 August 1979.

(b) Steelman Gas

The Board's adjustment of (\$7,673) to the Applicant's calculation of the test year transportation costs for gas

purchased from Steelman Gas Limited was necessary to reflect the approved transportation costs on the Applicant's system.

Operation and Maintenance

Adjustments made by the Board to operation and maintenance expense have resulted in a net reduction of \$4,717,654, made up as follows:

	<u>Adjustment</u>
Lost and Unaccounted for Gas	(\$5,137,439)
Cost of Gas Used in Operations	1,386,688
Wages and Benefits	(2,837,230)
General Expense	(504,368)
Electronic Pigging and Associated Pipe Replacements	3,126,887
Northern Projects	(413,038)
Gain on Revaluation of Transmission Line Pack Gas	<u>(339,154)</u>
Total Adjustment	<u>(\$4,717,654)</u>

The adjustments shown in the above summary are explained as follows:

(a) Lost and Unaccounted For Gas

TransCanada projected the volume of lost and unaccounted for gas to be $140.2 \times 10^6 \text{ m}^3$ for the test year, which is equivalent to 0.34 percent of the projected measured input to the pipeline system during the test year. This projection is based on the average of the unaccounted for losses experienced in the three year period from 1976 to 1978.

The Board notes that, subsequent to its Decision in the 1976 TransCanada rate case, the Company found and corrected the causes for the high gas losses incurred in 1976 and previous years, which led to a significant reduction of these losses in 1977 and 1978. While the Applicant achieved a small net gain in lost and unaccounted for gas during 1978, this achievement may not be repeated in 1979. The Board is convinced, however, that by continuing its corrective maintenance procedures and metering changes, TransCanada should be able to maintain these losses within the reasonable levels of the past two years. The Board cannot accept as reasonable the abnormally high 1976 losses which occurred before corrective action was taken by the Company.

Having regard to the level of losses that have occurred since TransCanada took the corrective action referred to above, the Board has adjusted, the volume of lost

and unaccounted for gas to 0.1 percent of the test year input. This volume adjustment resulted in a reduction of \$5,137,439 in the test year cost of service calculated, at the Applicant's revised imputed Alberta border price, as follows:

	<u>6 3</u> <u>10 m</u>	<u>@37.47</u> ^{GJ} <u>MJ/m</u> ³	<u>Amount at Imputed</u> <u>Alberta border price</u> <u>of 138.493¢/GJ</u>
Submitted by the Applicant	140.2	5,253,294	\$7,275,444
Amended by the Board	41.2	1,543,764	<u>\$2,138,005</u>
		Adjustment	<u>(\$5,137,439)</u>

TransCanada also requested approval for a deferral account to record variances between the actual cost of those losses and the cost included in rates for the test period. This is the third successive rate case in which the Company has raised this proposal for lost and unaccounted for gas, or some variation of it for gas used in pipeline operations. As on the two previous occasions, the Board observes that the cost of gas used in operations relates to the efficiency of pipeline operations and is something within the control of the Applicant. The results of the Applicant's recent endeavors to reduce gas losses are clear evidence that TransCanada has control over these losses to a substantial degree. The approval of a deferral account would, in the Board's view, remove the incentive for the Company to continue its efforts to reduce the losses and maximize pipeline efficiency. Accordingly, this request has been denied.

(b) Cost of Gas Used in Operations

The Applicant's forecasted cost of gas used in operations was \$71,348,135, based on its revised imputed Alberta border price of 138.493¢/GJ.

Some intervenors indicated that the ratio of compressor fuel volumes to the gas available for sale had increased from the last application. The Board is satisfied that TransCanada's fuel consumption forecast is reasonable and notes that the fuel requirement for volumes transported expressed in GJ/m³ is lower in the test year than in the base year.

The Board has adjusted the following costs to reflect its findings of an imputed Alberta border price of 141.297¢/GJ rather than 138.493¢/GJ.

	<u>NEB Adjustments</u>
Cost of Gas Used in Operations (including lost and unaccounted for gas)	\$1,340,535
Sales Tax on Compressor Fuel	<u>46,153</u>
Total Adjustment	<u>\$1,386,688</u>

(c) Wages and Benefits

The Applicant, in its estimate of wages and salaries, provided for an increase of 11.3 percent effective 29 December 1978, and an increase of 8.0 percent effective 28 December 1979. The 11.3 percent escalation in 1978 was based upon an 8 percent cost of living factor, a 2 percent merit factor, and a

1.3 percent adjustment factor to raise field operation salary rates to competitive levels. The 8.0 percent escalation in 1979 was based upon a 6 percent cost of living factor, and a 2 percent merit factor.

The Applicant included in its test year benefits an additional amount of \$1,430,294 to allow for the introduction of an Employee Savings plan, whereby the Company contributes, on a yearly basis, an amount equal to 5 percent of the annual salary of all employees with more than one year's service. TransCanada maintained that its benefits are, on average, below those currently being received by employees elsewhere and that this plan is necessary in order to remain competitive in this area.

The Applicant also included in test year wages and salaries an amount of \$878,889 for employee reclassifications.

With respect to the number of employees, TransCanada included an additional 94 permanent employees to the existing staff level of 1,413 at the end of the base year. This would raise the number of employees to 1,507, a level which was projected to remain unchanged throughout the test year. The 94 new employees would include 18 assigned to Alberta Affairs and Gas Supply and whose salaries would be charged to the Alberta Cost of Service. Evidence adduced during the hearing indicated that, by the end of December 1978, TransCanada had hired 27 employees, including 9 assigned to Alberta Affairs. There was also evidence which showed that the Company had not projected an increase in its sales volumes during the test year.

It is the Board's view that the competitive adjustment for field operators and the cost of living factors utilized by TransCanada are reasonable. The Board also accepts the Employee Savings plan as constituting a reasonable addition to TransCanada's current benefit program. The Board feels, however, that TransCanada did not provide adequate evidence showing that the proposed merit increases could be justified as an addition to the overall level of salaries and, therefore, concludes that increases in wages and salaries for the test period should be limited to an increase of 9.3 percent for 1979 and of 6.0 percent for 1980.

With respect to reclassifications, TransCanada was unable to provide an adequate explanation as to why such an allowance is necessary when the company's overall salary structure is expected to remain the same. The Board, therefore, concludes that an allowance for reclassifications should not be included in the cost of service. The Board notes the argument by TransCanada that a component of the vacancy turnover rate is linked to employee reclassifications, but points out that the Company did not provide any estimate of the possible magnitude of such a component. Consequently, the Board concludes that there should be no reduction in the vacancy turnover rate used for the test year as a result of the disallowance of the adjustment for reclassifications.

In the Board's view the Applicant has not presented sufficient evidence of the need for 94 additional employees in the test year. The Board, therefore, reduced the requested number by 58 employees, projected to be hired in 1979 and assigned to TransCanada's utility operations outside Alberta.

By reason of the foregoing adjustments to test year salaries, the Board has reduced the Applicant's projection of operation and maintenance expense by an amount of \$2,837,230.

(d) General Expense

In its adjustment for the normalization of general expenses for the test year, the Applicant included an amount of \$504,368 for Special Services which related to advertising. TransCanada indicated that the inclusion of this expense in its cost of service was justified by its substantial obligations in Alberta with respect to the take or pay provisions of its gas purchase contracts.

From the evidence, the Board is not convinced that advertising costs undertaken to alleviate the burden of take or pay obligations should be included in the cost of service. The Board, therefore, has deducted this amount from operation and maintenance expense for the test year.

(e) Electronic Pigging and Associated Pipe Replacements

The Board, having decided that the costs of electronic pigging and associated pipe replacements, done other than part of any rerating, are to be recovered as a maintenance expense, has included an amount of \$3,126,887 for this item in operation and maintenance for the test year. (See Chapter 2, Gross Plant - Electronic Pigging and Associated Pipe Replacements.)

(f) Northern Projects

TransCanada proposed to amortize in its cost of service over three years commencing with the test year, \$1,239,112 representing advances to the Polar Gas Project between 1 August 1978 and 31 July 1979 exclusive of advances allocated to the Alberta cost of service. The amount included in the test year cost of service is \$413,038.

Of the total advances to the Polar Gas Project, the Applicant showed \$82,000 as being related to the costs incurred by Polar Gas Limited to file an application with this Board for a certificate of public convenience and necessity. The remainder of the advances were classified by the Applicant as being research and development costs. During the hearing, TransCanada indicated that the Polar Gas Project was involved in research into the following matters during the period from 1 August 1978 to 31 July 1979:

- (1) the obtaining of bathymetric data consisting of channel bottom profiling, ice conditions, water temperatures, tides and currents;
- (2) geotechnical overview of land routing and gathering data on the types of soils and terrain;
- (3) review of environmental and socio-economic information and preparation of associated reports;
- (4) studies to optimize, update and refine construction logistics;
- (5) preparation of public information pieces, including brochures and audio-visual materials; and
- (6) meetings with community and native group representatives, orientation programmes, and training and employment studies.

The Applicant acknowledged that all of these activities were necessary either to obtain the information necessary for an application to this Board for a certificate or for other regulatory approvals, or to the public relations aspects to obtaining such approvals.

As indicated in the Board's Reasons for Decision in the 1978 TransCanada Rate Case, the Board believes that reasonable pipeline research costs relative to new sources of supply should not be discouraged and may be included in the cost of service for that pipeline. The Board did disallow the inclusion in the cost of service of hearing costs related to

the unsuccessful Canadian Arctic Gas Project, on the basis that a part of the burden of these costs should be borne by the Company's shareholders rather than being totally recovered in rates.

In the Board's view, the 1978-79 advances to the Polar Gas Project are not related as much to pipeline research costs relative to new sources of supply as they are to costs incurred in the process of proceeding with an application for regulatory approval and meeting information requirements for that purpose. In these circumstances, the Board considers that such costs more properly belong to Polar Gas Limited. Accordingly, the amount of \$413,038 included in TransCanada's cost of service as research and development costs has been disallowed.

This disallowance does not affect the continued amortization in the test year of contributions to Northern Projects approved by the Board in previous rate decisions.

(g) Gain on Revaluation of Transmission Line Pack Gas

TransCanada deducted from operation and maintenance expense an amount of \$858,526 which represents its estimate of the gain as at 1 August 1979 on the revaluation of transmission line pack gas. This gain was based on TransCanada's estimate of the imputed Alberta border price of 138.493¢/GJ at 1 August 1979.

Having determined the imputed Alberta border price to be 141.297¢/GJ on 1 August 1979, the Board has adjusted operation and maintenance expense by the amount of (\$339,154) to reflect the actual revaluation gain of \$1,197,680 at 1 August 1979.

(h) Storage in Ontario

On October 20, 1978, the Board prescribed accounting procedures which the Applicant is required to follow for the revaluation of its inventories of gas in storage in Ontario at the time of any future increases in the imputed Alberta border price. In that accounting procedure, the Board ordered that the inventories of gas in storage shall be revalued in the Applicant's accounts to the new Alberta border price, and the revaluation credit arising from the increase shall be recorded in NEB Account 279 - "Other Deferred Credits" for disposition by the Board at a future rate proceeding.

The Applicant requested that the accounting order be modified to permit the deduction from such revaluation credits of storage charges and carrying charges computed monthly at a simple annual interest rate equal to the prime rate plus 1 per cent on the value of the monthly inventory in storage.

In the evidence presented, TransCanada did not demonstrate that it had specific plans to store gas in Ontario in the test year. In these circumstances, the Board has denied the Applicant's request to modify the Board's accounting order of October 20, 1978 in respect of inventory revaluation.

Depreciation

Depreciation of fixed assets was included in cost of service, as revised, at rates previously authorized by the Board. The amount projected by the Applicant has been reduced by \$552,618 to reflect the removal by the Board from rate base of various items of gross plant. (See Chapter 2, Gross Plant, page 2-2.)

Income Taxes

(a) Calculation of Income Taxes

In its July 1978 Decision, the Board concluded that it would be more appropriate to use the normalized method of calculating income taxes as the basis for recognizing the income tax cost to be included in TransCanada's cost of service for rate making purposes.

During the course of the 1979 Hearing, the Canadian Petroleum Association presented evidence advocating that the flow-through method should be employed by TransCanada as a basis for determining the income tax cost to be included in the cost of service and that the Board should require the Applicant to revert to this method.

Having given consideration to the arguments advanced in this connection, the Board concludes that the evidence presented did not raise arguments that had not been considered in its previous decision. For this reason, and given no significant change in circumstances since 1978, the Board sees no reason to vary that decision.

The calculations of normalized income taxes, income taxes payable and average deferred income taxes for the test year are set forth hereunder. Board adjustments to the Applicant's calculations of normalized and current income taxes payable reflect the rate base and rate of return allowed in this decision. Board adjustments of items other than operating income are explained in the footnotes to the normalized tax calculation.

Normalized Income Taxes For The Test Year

	<u>Application As Revised</u>	<u>Per NEB</u>
Operating Income	\$154,309,240	\$147,826,551
Allowance For Funds Used During Construction	<u>1,652,000</u>	<u>1,652,000</u>
Total Income Before Financial Charges	<u>\$155,961,240</u>	<u>\$149,478,551</u>
Financial Charges (Including those allocated by the Applicant to non-utility investment)	(69,907,176)	(70,216,770) ⁽¹⁾
Adjustment to Financial Charges to Exclude those allocated by the Applicant to non-utility investment	<u>1,310,010</u>	<u>-</u> ⁽²⁾
Total Financial Charges	<u>\$ (68,597,166)</u>	<u>\$ (70,216,770)</u>
Net Income Before Adjustments for Permanent Differences	\$ 87,364,074	\$ 79,261,781
Permanent Differences:		
Eligible Capital Expenditures	(127,701)	(127,590) ⁽³⁾
Non Allowed Portion of Amortization of Debt Discount and Expense	1,692,505	1,691,050 ⁽³⁾
Capital Loss	105,150	- ⁽⁴⁾
Inventory Allowance	<u>(548,378)</u>	<u>(554,323)</u> ⁽⁵⁾
Normalized Utility Income After Tax	<u>\$ 88,485,650</u>	<u>\$ 80,270,918</u>
Normalized Income Taxes (at 50.01%)	\$ 88,521,051	\$ 80,303,033

Notes:

- (1) Reflects increased unfunded debt (adjusted to compensate for the decreased equity return and increased average deferred tax balance) and a minor difference in the Alberta allocation factor applied.
- (2) Dividend income received from non-utility investment is not subject to tax and this adjustment is disallowed as was the case in the previous N.E.B. decision.
- (3) Differences due to a minor difference in the Alberta allocation factor applied arising from Board adjustments to the rate base.
- (4) Disallowed, as net capital losses in a current period are only applicable to capital gains realized in future periods.
- (5) Difference due to increase in the imputed Alberta border price.

Income Taxes Payable For The Test Year

	Application As Revised	Per NEB
Normalized Utility Income After Tax	\$ 88,485,650	\$ 80,270,918
Normalized Income Taxes	<u>88,521,051</u>	<u>80,303,033</u>
Normalized Utility Income Before Tax	<u>\$177,006,701</u>	<u>\$160,573,951</u>
Adjustments:		
Amortization and Depreciation	\$ 54,227,000	\$ 54,227,000
Deferred Normalized Income Taxes	2,682,630	2,682,630
Allowance For Funds Used During Construction	(1,652,000)	(1,652,000)
Overhead Costs Capitalized	(6,367,946)	(6,367,946)
Capital Cost Allowance	<u>(65,982,782)</u>	<u>(65,982,782)</u>
Total Adjustments	<u>\$ (17,093,098)</u>	<u>\$ (17,093,098)</u>
Taxable Income	<u>\$159,913,603</u>	<u>\$143,480,853</u>
Income Taxes Payable (at 50.01%)	\$ 79,972,793	\$ 71,754,775

Average Deferred Income Taxes For The Test Year

	Application As Revised	Per NEB
Normalized Income Taxes	\$ 88,521,051	\$ 80,303,033
Income Taxes Payable	<u>(79,972,793)</u>	<u>(71,754,775)</u>
Income Taxes Deferred	\$ 8,548,258	\$ 8,548,258
Deferred Income Tax Balance at 1 August 1979	<u>8,453,000</u>	<u>8,453,000</u>
Deferred Income Tax Balance at 31 July 1980	<u>\$ 17,001,258</u>	<u>\$ 17,001,258</u>
Average Deferred Income Taxes for the Test Year	\$ 12,702,857	\$ 12,727,129 ⁽¹⁾

Note:

$$\begin{aligned}
 (1) \quad & \frac{\text{Beginning Deferred Tax Balance} + \text{Ending Deferred Tax Balance}}{2} \\
 & = \frac{\$8,453,000 + \$17,001,258}{2} = \$12,727,129
 \end{aligned}$$

(b) Deferral Account for Reassessed Income Taxes

TransCanada included in its application a request for a deferral account in respect of income taxes which may result from a reassessment by the Department of National Revenue, Taxation. During the hearing, the Applicant stated that the Company will be reassessed for the 1978 taxation year. Since this is the first year that TransCanada has paid income taxes, this reassessment could include amounts that might be disallowed with respect to previous years. Neither the amount nor the timing of the reassessment were predictable at the time of the hearing.

While there might be grounds for the use of a deferral account for taxes payable on reassessment with respect to the years the Company was on the flow through basis of calculating income taxes, there was no evidence that the expected reassessment would result in any additional taxes that would be payable if the Company were still on a flow-through basis. In view of these considerations and the fact that TransCanada is currently collecting normalized income taxes in its rates, the Board is not satisfied that the need for such a deferral account has been established. This request is, therefore, denied.

Miscellaneous Deferred Items

The Board has included in miscellaneous deferred items an amount of \$2,223,658, representing the Applicant's estimate of costs for electronic pigging and associated pipe replacements during the period 1 May 1979 to 31 July 1979. (See Chapter 2, Gross Plant, page 2-8.)

Other Operating Income

The Board's adjustment of (\$33,390) to the Applicant's calculation of other operating income for the test year was necessary to reflect increased revenue from the sale of delivery pressure arising from the change in the imputed Alberta border price.

RATE DESIGN AND OTHER TARIFF MATTERSGaz Métropolitain - Eastern Zone

The principal issue in respect of rate design in this hearing was the proposal by Gaz Métro to vary the methods by which the Contract Demand ("CD") and Annual Contract Quantity ("ACQ") rates are determined for sales of gas by TransCanada in the Eastern Zone.

Under the present tariff, the CD rates consist of three components: a transportation demand rate, a transportation commodity rate and the imputed Alberta border price. The demand rate is based upon the fixed costs of providing pipeline service and the contracted daily demand of the distributors. The contracted daily demand is determined by agreements between TransCanada and the distributors. The transportation commodity rate is based upon the variable costs of transporting gas and the projected annual deliveries for CD service. The unit cost of gas to a distributor for CD service depends upon the load factor at which the distributor takes delivery of gas from TransCanada; the higher the load factor, the lower the unit cost of gas.

The ACQ rate applies to a particular sales service provided by TransCanada in the western and central delivery areas of the Eastern Zone, and is one of the two principal services under which The Consumers' Gas Company and Union Gas Limited purchase gas from the Applicant. Under the ACQ service, while a distributor contracts for a specified annual volume,

TransCanada has the flexibility to deliver a portion of that gas when it has available pipeline capacity during off-peak periods. The rationale of the ACQ service is that the distributor can take gas in off-peak periods and store it until it is required by its customers. The ACQ rate is less than the CD rate at 100 per cent load factor and the differential between the two rates is based upon the cost to TransCanada of storing and transporting the gas if TransCanada were to provide CD service instead of ACQ service. The ACQ differential proposed by TransCanada for the test year is \$2.50/10³m³.

In making its rate design proposal, Gaz Métro was seeking to improve the competitive position of natural gas in its market area in relation to oil and electricity, or at least to prevent further deterioration of its competitive position. To accomplish this, Gaz Métro proposed that all distributors in the Eastern Zone should pay the same unit price for CD service gas regardless of the load factor at which gas is purchased. Gaz Métro anticipates it will purchase CD service at a 95 per cent load factor in the test year.

In order to implement its approach to the CD rates, Gaz Métro introduced the concept of a monthly "billing demand" in determining the demand charges. The billing demand for a distributor in each month in the test year would be that distributor's forecast of the volume of gas it would purchase

in each month. The fixed costs of the system would then be allocated to each distributor on the basis of the aggregate of the monthly billing demands for the test year. By reason of the variation of the demand rate for CD service under this proposal, Gaz Métro then adjusted the transportation commodity rate so that its proposed CD rate in the Eastern Zone would be consistent with the Toronto reference price and the imputed Alberta border price. Since CD rates based on the billing demand would produce lower revenues from CD sales, Gaz Métro proposed to reduce the ACQ differential so that TransCanada would receive higher revenues from ACQ sales and thereby recover its full cost of service allocated to the Eastern Zone. The adjustment to the ACQ rates would reduce the ACQ differential by some 50 per cent.

In Gaz Métro's view, one of the defects of the present rate design is that it does not adequately reflect the benefits that upstream customers derive from the diversity of loads of customers at the end of the system. Gaz Métro stated that, when it did not use some of its contracted demand, then that capacity was released for the use of someone else on the system.

TransCanada took the position that it saw no valid reason to change the rate design approved by the Board in its last decision. The Applicant was concerned that under the billing demand proposal, the Company may not recover all of its fixed costs if the forecasts of billing demands were such that

deliveries of CD service gas were lower than forecast. Under the existing rates, this is not a problem because fixed costs are recovered on the basis of the contracted daily demand of the distributors. TransCanada indicated that, under the CD service, its customers were paying for the capacity of the system to make the contracted deliveries. The Applicant's pipeline system has sufficient capacity to meet the contracted daily demand of all distributors on any day of the year. However there is not sufficient capacity to permit delivery of all of the ACQ volumes under CD service.

The Board has given careful consideration to Gaz Métro's proposal on rate design in the Eastern Zone. In the Board's view, the existing rate structure involving the use of the zone system, which was established in the first TransCanada rate decision, provides some assistance to Gaz Métro in meeting the competition from alternative fuels in its market area. The issue thus becomes whether further changes should be made to assist Gaz Métro in meeting competition. Natural gas sold in Gaz Métro's market area for residential and commercial use is subject to an 8 per cent sales tax imposed by the Province of Quebec. While electricity is also subject to that tax, oil is not. In the Board's view, the imposition of that tax contributes to Gaz Métro's competitive problem. Gaz Métro also indicated that if its rate design were adopted, its gas costs would be reduced by some \$4,600,000 in the test year. Gaz Métro

indicated that it would use the funds to build new facilities to expand its franchise area. In the Board's view, this use of the funds would not relieve Gaz Métro of its immediate gas marketing problems.

Under Gaz Métro's rate design proposal, a distributor would, under CD service, only pay for the pipeline capacity contracted to it, when that capacity is used in the winter months. There might be some merit to that proposal if, as suggested by Gaz Métro, other customers on the system made use of that capacity when it was relinquished by Gaz Métro in the summer months. There was no evidence, however, to establish that this would occur. All of the distributors served by TransCanada experience their peak loads in the winter months. Moreover, the TransCanada system has sufficient capacity to meet the full contracted demand of the distributors throughout the year. It would be difficult, in the Board's opinion, to design rates on the expectation that one distributor's drop in demand would be matched by an equivalent increase in demand by another distributor.

The Board also considers the Gaz Métro proposal to be deficient in its treatment of the ACQ service. By reducing the ACQ differential to one-half of what it would otherwise be, the proposal divorces the ACQ rate from the rationale for its existence. The ACQ differential is based on the cost to TransCanada of storing and transporting gas if TransCanada were to provide CD service instead of ACQ service. By reason of the existence of storage facilities in Ontario, TransCanada has not

been required to construct a larger pipeline to meet the demands of its customers in the winter period. Had TransCanada been required to build a pipeline of greater capacity in order to sell ACO service as CD service, the CD rates would have been higher.

Gaz Métro acknowledged that it would not have made its rate design proposal if it were able to purchase CD service gas at a 100 per cent load factor.

In view of the foregoing, the Board is not satisfied that Gaz Métro's rate design proposal achieves a more appropriate system of rate design for all distributors in the Eastern Zone purchasing gas from TransCanada.

In conjunction with its rate design proposal, Gaz Métro filed a notice of motion requesting the Board to direct the Applicant to undertake certain studies in relation to its rate design. While the motion originally requested that these studies be considered in Phase III of the hearing, Gaz Métro indicated that the studies could not be completed in time for new rates and tolls to go into effect on 1 August 1979. Gaz Métro thus submitted that, at such time as the studies were completed, the Board should hold a hearing to consider the studies and modifications of TransCanada's rate design. In the notice of motion, it was suggested that TransCanada study the allocation of costs using the following methods:

- (1) a system-wide allocation,
- (2) a historical zone differential, and
- (3) an equal weighting of the historical zone differential and the present volume-distance.

The Board has some difficulty with what Gaz Métro meant by a "system-wide allocation" of costs. If Gaz Métro meant some other system of allocation than that presently approved, it was not adequately defined. Further, the Board sees no merit in using the historical zone differentials, since those differentials reflect nothing more than the differences in rates between various zones arising from the allocation of costs to the various forecast deliveries in a particular test period. In the Board's view, the deliveries to a zone in a particular test period do not provide an appropriate guide for determining rates for that zone in another period.

The Board concludes that, before it will direct TransCanada to undertake detailed studies of any rate design proposal, particularly at the request of one of its distributor customers, it must appear that the method proposed is one which has the potential for achieving a more appropriate rate design. The Board is not satisfied that Gaz Métro's suggestions for study meet this test, and the motion is therefore denied.

ACQ Differential

In its application, TransCanada proposed an ACQ rate differential of \$2.50/10³m³ based on what it would cost the Company to provide the storage and transportation services in Ontario necessary to sell, as CD service, the 5580 10⁶m³ of ACQ service gas. Subsequent to the filing of the application, the Ontario Energy Board approved new storage and transportation rates, but these new rates do not result in any significant

change to the calculation of the ACQ differential. Considering the rate of return allowed in this Decision, the Board finds a differential of \$2.50/10³m³ to be appropriate.

Lost and Unaccounted for Gas

One Intervenor proposed during the hearing that lost and unaccounted for gas be allocated on a volumetric basis rather than the present volumetric distance basis, since the cause of such losses is primarily related to metering. The Board is not satisfied that the volumetric basis is a more appropriate method for allocating lost and unaccounted for gas, because the evidence presented did not eliminate distance of haul as a factor in the quantity of lost and unaccounted for gas. Accordingly, the Board sees no basis for changing the method used in its prior decisions to allocate this component of the cost of service.


General Terms and Conditions

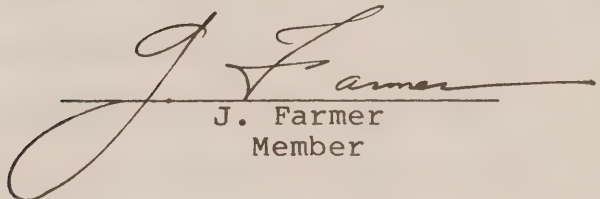
TransCanada proposed a change in the General Terms and Conditions of its Tariff. Section VIII of such General Terms and Conditions for the sale of gas currently provides an interest rate of 8 percent for late payment and overcharge refunds. TransCanada proposed to change this interest rate to the prime rate of interest of the Canadian Imperial Bank of Commerce plus one percent.

The Board finds the proposed change to Section VIII of the General Terms and Conditions of the Applicant's tariff to be appropriate.

DISPOSITION

Order Nos. TG-2-79 and TG-3-79, which are shown as Appendices II and III respectively, were predicated upon these Reasons for Decision. The foregoing chapters, together with the above Orders, constitute our Reasons for Decision and our Decision on the application by TransCanada PipeLines Limited and the related motion by Gaz Métropolitain, inc.



L.M. Thur
Presiding Member

J. Farmer
Member

J.R. Hardie
Member

Ottawa, Canada
July 1979.

NATIONAL ENERGY BOARD



OFFICE NATIONAL DE L'ÉNERGIE

ORDER NO. RH-1-79

IN THE MATTER OF the National Energy Board Act
and the Regulations made thereunder, and

IN THE MATTER OF an application by TransCanada
PipeLines Limited (hereinafter called "the
Applicant") for certain orders respecting rates
and tolls under Sections 50 and 53 of the
National Energy Board Act and for certain orders
under Section 53 of the Petroleum Administration
Act, filed with the Board under File No.
1562-T1-12.

B E F O R E the Board on Thursday, the 29th day of March, 1979.

UPON reading the application filed on behalf of the
Applicant dated the 28th day of February, 1979, (hereinafter called
the "Application"), firstly, under Sections 50 and 53 of the
National Energy Board Act, for orders fixing the just and
reasonable rates or tolls the Applicant may charge for or in
respect of gas sold by the Applicant in Canada and for
transportation services to Saskatchewan Power Corporation,
Consolidated Natural Gas Limited and Gaz Métropolitain, inc., and
disallowing any existing tariffs or rates or tolls or portions
thereof that are inconsistent with the just and reasonable rates or
tolls so fixed and, secondly, under Section 53 of the Petroleum
Administration Act and the Regulations made pursuant to Part III of
that Act, for Special and General Orders approving the price to be
paid by the Applicant to acquire gas for removal from the Province
of Alberta and revoking any previous orders inconsistent therewith,
all effective the 1st day of August, 1979;

IT IS ORDERED THAT:

1. That portion of the Application made under Sections 50 and 53 of the National Energy Board Act will be heard at a public hearing commencing at 9:30 a.m. local time, on Tuesday, the 15th day of May, 1979, in the Hearing Room of the National Energy Board, Room 940, Trebla Building, 473 Albert Street, in the City of Ottawa, in the Province of Ontario, (hereinafter referred to as "the Hearing".) The Hearing will be conducted in either of the two official languages and simultaneous interpretation will be provided should a party to the proceedings request such facilities in his intervention.
2. The Applicant shall, forthwith, serve a true copy of the Application, if not already served, and a true copy of this Order, upon all the Applicant's customers, the Attorneys General of the Provinces of Alberta, Saskatchewan, Manitoba, Ontario and Quebec, the Canadian Gas Association, the Canadian Petroleum Association, the Independent Petroleum Association of Canada, and, as soon as possible, upon such other persons who have intervened pursuant to paragraph 4 hereof.
3. Notice of the Hearing in the form prescribed by the Board as set forth in the Notice attached to and which forms part of this Order shall be published not later than the 7th day of April, 1979, in one issue each of "The Herald" in the City of Calgary and "The Journal" in the City of Edmonton, both in the Province of Alberta, "The Leader-Post" in the City of Regina, in the Province of Saskatchewan; "The Winnipeg Free Press" and "The Tribune" in the City of Winnipeg, Province of Manitoba; "The Globe and Mail", "Toronto Star" and "The Financial Post", in the City of Toronto,

- 3 -

"The Citizen" and "Le Droit" in the City of Ottawa, all in the Province of Ontario; "The Gazette", "Le Devoir" and "Financial Times of Canada" in the City of Montreal, Province of Quebec, and as soon as may be possible in the Canada Gazette.

4. Any person intending to oppose or intervene in the said Application, shall, on or before the 27th day of April, 1979, file with the Secretary of the Board thirty (30) copies of a written statement containing his reply or submission, together with any supporting information, particulars or documents, which shall include a concise statement of the facts from which the nature of the respondent's or intervenors's interest in the proceedings may be determined, which may admit or deny any or all of the facts alleged in the Application, which shall be endorsed with the name and address of the respondent or intervenor or his solicitor to whom communications may be sent, and which shall state the official language in which the respondent or intervenor wishes to be heard. Any respondent or intervenor shall, on or before the 27th day of April, 1979, serve three (3) copies of his reply or submission and supporting information, particulars or documents upon the Applicant and one (1) copy each upon the Attorneys General of the Provinces of Alberta, Saskatchewan, Manitoba, Ontario and Quebec, the Canadian Gas Association, the Canadian Petroleum Association and the Independent Petroleum Association of Canada, and shall file proof of service thereof with the Board at the opening of the Hearing.

... 4

- 4 -

5. The Applicant shall prepare its direct evidence written in question and answer form with lines numbered (hereinafter called "written direct evidence") for each of its witnesses and shall,

- (a) on or before the 20th day of April, 1979, file twenty (20) copies thereof with the Board and serve one copy of the same upon each person specified in Appendix I to this Order, and
- (b) as soon as possible, serve one copy of the same upon any other party who has intervened pursuant to paragraph 4 of this Order.

6. Any party who has intervened pursuant to paragraph 4 hereof and who wishes to present direct evidence in the Hearing, shall prepare written direct evidence, and shall, on or before the 7th day of May, 1979, file twenty (20) copies thereof with the Board and serve one (1) copy of the same upon the Applicant and each other party who has intervened pursuant to paragraph 4 hereof, a list of which intervenors will be available from the Board on the 2nd day of May, 1979.

7. The Rules and Procedures set out in Appendix II to this Order shall govern the conduct of the Hearing.

8. Any interested party may examine a copy of the Application and the submissions filed therewith at the office of:

National Energy Board
Trebla Building
473 Albert Street
Ottawa, Ontario
K1A OE5

- 5 -

or at the offices of the Applicant at the following addresses:

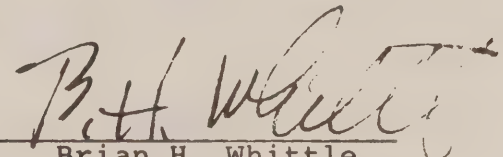
TransCanada PipeLines Limited
Commerce Court West
Toronto, Ontario
M5L 1C2

or

407-8th Avenue South West
Calgary, Alberta
T2P 2M7

DATED at the City of Ottawa, in the Province of Ontario,
this 29th day of March, 1979.

NATIONAL ENERGY BOARD



Brian H. Whittle
Secretary

NATIONAL ENERGY BOARD

NOTICE OF HEARING

TAKE NOTICE THAT TransCanada PipeLines Limited, hereinafter called "the Applicant" has filed an application dated the 28th day of February, 1979 (hereinafter referred to as "the Application") firstly, under sections 50 and 53 of the National Energy Board Act, for orders fixing the just and reasonable rates or tolls the Applicant may charge for or in respect of gas sold by the Applicant in Canada and for transportation services to Saskatchewan Power Corporation, Consolidated Natural Gas Limited and Gaz Métropolitain, inc., and disallowing any existing tariffs or rates or tolls or portions thereof that are inconsistent with the just and reasonable rates or tolls so fixed, and, secondly, under section 53 of the Petroleum Administration Act for certain orders approving the price to be paid by the Applicant to acquire gas for removal from the Province of Alberta and revoking any previous orders inconsistent therewith.

THE BOARD HAS ORDERED THAT:

1. That portion of the application made under Sections 50 and 53 of the National Energy Board Act will be heard at a public hearing commencing at 9:30 a.m. local time, on Tuesday, the 15th day of May, 1979, in the Hearing Room of the National Energy Board, Room 940, Trebla Building, 473 Albert Street, in the City of Ottawa, in the Province of Ontario. Such proceedings will be conducted in either of the two official languages and simultaneous interpretation will be provided should a party to the proceedings request such facilities in his intervention.

2. Any person intending to oppose or intervene in the said Application, shall, on or before the 27th day of April, 1979, file with the Secretary of the Board thirty (30) copies of a written statement containing his reply or submission, together with any supporting information, particulars or documents, which shall include a concise statement of the facts from which the nature of the respondent's or intervenor's interest in the proceedings may be determined, which may admit or deny any or all of the facts alleged in the Application, which shall be endorsed with the name and address of the respondent or intervenor or his solicitor to whom communications may be sent, and which shall state the official language in which the respondent or intervenor wishes to be heard. Any respondent or intervenor shall, on or before the 27th day of April, 1979, serve three (3) copies of his reply or submission and supporting information, particulars or documents upon the Applicant and one (1) copy each upon the Attorneys General of the Provinces of Alberta, Saskatchewan, Manitoba, Ontario and Quebec, and the Canadian Gas Association, the Canadian Petroleum Association and the Independent Petroleum Association of Canada and shall file proof of service thereof with the Board at the opening of the Hearing.

3. Any party who has intervened pursuant to paragraph 2 hereof and who wishes to present direct evidence, shall prepare written direct evidence, and shall, on or before the 7th day of May, 1979, file twenty (20) copies thereof with the Board and serve one (1) copy of the same upon the Applicant and each

- 3 -

of the parties who has intervened pursuant to paragraph 2 hereof, a list of which will be available at the Board on the 2nd day of May, 1979.

4. Any interested party may examine a copy of the Application and the submissions filed therewith at the office of:

National Energy Board
Trebla Building
473 Albert Street
Ottawa, Ontario
K1A OE5

or at the offices of the Applicant at the following addresses:

TransCanada PipeLines Limited
Commerce Court West
Toronto, Ontario
M5L 1C2

407-8th Avenue South West
Calgary, Alberta
T2P 2M7

DATED at the City of Ottawa, in the Province of Ontario,
this 29th day of March, 1979.

NATIONAL ENERGY BOARD

Brian H. Whittle,
Secretary.

Attorney General for the
Province of British Columbia
Parliament Building
Victoria, British Columbia

Attorney General for the
Province of Alberta
Legislative Building
Edmonton, Alberta

Attorney General for the
Province of Saskatchewan
Legislative Buildings
Regina, Saskatchewan

Attorney General for the
Province of Manitoba
Legislative Building
Winnipeg, Manitoba

Minister of Justice and
Attorney General for the
Province of Ontario
Parliament Buildings
Toronto, Ontario

Minister of Justice
Province of Quebec
Parliament Buildings
Quebec City, P.Q.

Mr. G. Douglas Nichols
Consolidated Natural Gas Limited
Consolidated Pipe Lines Company
1300 Elveden House
717 - 7th Avenue S.W.
Calgary, Alberta T2P 0Z3

Mr. R. S. Loughheed
Senior Vice President, Gas Supply
The Consumers' Gas Company
1 First Canadian Place, Suite 4200
P.O. Box 90
Toronto, Ontario M5X 1C5

Me. Francoise Bureau
Gaz Metropolitain, inc.
P.O. Box 6111
Montreal, Quebec H3C 3H9

Mr. A. P. Rathke
President
Greater Winnipeg Gas Company
265 Notre Dame Avenue
Winnipeg, Manitoba R3B 1N9

Mr. E. P. Rimmer
Inter-City Gas Limited
1500 Richardson Building
One Lombard Place
Winnipeg, Manitoba R3B 2A4

Mr. K. Fee
Kingston Public Utilities
Commission
P.O. Box 790
Kingston, Ontario K7L 4X7

Mr. Peter F. Scully
General Counsel
Northern and Central Gas Corp. Ltd.
245 Yorkland Blvd.
Willowdale, Ontario M2J 1R1

Mr. D. D. Fearn
Vice-President
Plains-Western Gas (Manitoba) Ltd.
1610 Rosser Avenue
P.O. Box 219
Brandon, Manitoba
R7A 5Z1

Mr. F. G. Ursel, General Manager
Saskatchewan Power Corporation
2025 Victoria Avenue
Regina, Saskatchewan S4P 0S1

Mr. J. B. Jolley, Vice-President
and General Counsel
Union Gas Limited
50 Keil Drive North
Chatham, Ontario N7M 5M1

Mr. J. M. Rady, Senior Vice-President
General Counsel & Secretary
Great Lakes Gas Transmission Company
2100 Buhl Building
Detroit, Michigan 48226
U.S.A.

Mr. W. Arthur Batten
Vice-President
Michigan Wisconsin Pipe Line Company
One Woodward Avenue
Detroit, Michigan 48226
U.S.A.

Mr. J. M. Robertson
Midwestern Gas Transmission Company
P.O. Box 2511
Houston, Texas 77001
U.S.A.

- 2 -

Mr. R. S. Lougheed
Vice-President and General Manager
Niagara Gas Transmission Company
1 First Canadian Place, Suite 4200
P.O. Box 90
Toronto, Ontario M5X 1C5

Mr. L. J. Gaissert
Vermont Gas Systems Inc.
31 Swift Street
South Burlington, Vermont 05401
U.S.A.

Mr. D. G. Olafson
The Alberta Gas Trunk Line Company
Limited
Bow Valley Square II
205 - 5th Avenue S.W.
Calgary, Alberta, T2P 2W4

Mr. E. H. Gaudet
Chevron Standard Limited
400 - Fifth Ave. S.W.
Calgary, Alberta T2P 0L7

Mr. James J. Kinahan
Solicitor
Dow Chemical of Canada, Limited
P.O. Box 1012
Sarnia, Ontario

Mr. C. D. Williams
Westcoast Transmission Company
Limited
1333 West Georgia Street
Vancouver, B.C. V6E 3K9

British Columbia Petroleum
Corporation
1199 West Hastings St.
Vancouver, B.C. V6E 3T5

Mr. E. G. Sheasby
Vice-President, General Counsel
and Secretary
Interprovincial Pipe Line Limited
Box 48, 1 First Canadian Place
Toronto, Ontario M5X 1A9

Dr. A. W. Birnie
Executive Secretary
Industrial Gas Users Association
c/o Canadian Industries Limited
Corporate Planning Group
630 Dorchester West
P.O. Box 10
Montreal, Quebec H3C 2R3

Alberta Energy Company Ltd.
2400 - 639 Fifth Avenue S.W.
Calgary, Alberta T2P 0M9

Trans-Northern Pipe Line Company
Suite 1212
55 Bloor Street West
Toronto, Ontario M4W 3H3

Mr. Robert C. Muir
General Counsel
Dome Petroleum Limited
333 - 7th Avenue S.W.
P.O. Box 200
Calgary, Alberta T2P 2H8

Mr. E. G. Ringrose
Vice-President & General Manager
Pan-Alberta Gas Ltd.
350, 202 - 6th Avenue S.W.
Calgary, Alberta T2P 2R9

Mr. George Little
PanCanadian Petroleum Limited
2000 One Palliser Square
P.O. Box 2850
Calgary, Alberta T2P 2S5

Mr. Barry D. Cochrane
Norcen Energy Resources Limited
4600 Toronto-Dominion Centre
Toronto, Ontario M5K 1E5

Mr. Hans Maciej
Technical Director
Canadian Petroleum Association
1500, 633 Sixth Avenue S.W.
Calgary, Alberta

Mr. J. Porter
Independent Petroleum Association
of Canada
1610, 715 - 5th Avenue S.W.
Calgary, Alberta
T2P 0N2

Mr. W. H. Dalton, President
Canadian Gas Association
55 Scarsdale Road
Don Mills, Ontario M3B 2R3

Mr. Michel Thivierge
Direction generale de l'Energie
1305, Chemin Ste-Foy
Quebec, P.Q. G1S 4N5

- 3 -

Mr. Richard P. Smith
Counsel
Ministry of Energy
12th Floor
56 Wellesley Street West
Toronto, Ontario M7A 2B7

Mr. D. C. Hetland
Secretary & Solicitor
Alberta Petroleum Marketing
Commission
1000 Bow Valley Square II
205 - 5th Avenue S.W.
Box 9084
Calgary, Alberta T2P 2W4

Mr. Gordon Connell
Gulf Oil Canada Limited
P.O. Box 130
Calgary, Alberta T2P 2H7

Imperial Oil Limited
111 St. Clair Avenue West
Toronto, Ontario M5W 1K3

Mr. P. Walker
Shell Canada Limited
1027 - 8th Avenue S.W.
Calgary, Alberta

Mr. D. W. MacFarlane
Mobil Oil Canada Ltd.
Mobil Tower
Calgary, Alberta T2P 2J7

RULES AND PROCEDURES

1. In these Rules, "party" means TransCanada PipeLines Limited and any respondent or intervenor who has filed with the Secretary of the Board a written statement pursuant to paragraph 4 of Order No. RH-1-79.
2. At the public hearing of the Application by TransCanada PipeLines Limited, the evidence shall be heard in the following order:
 - (1) Rate base and Cost of Service excluding return;
 - (2) Rate of Return; and
 - (3) Rate Design and Other Tariff matters.
3. The Board shall hear all of the evidence on each of the three items referred to in paragraph 2 of these Rules, item by item, and for that purpose the Board shall first hear all of the evidence of the Applicant in respect of one item and then shall hear the evidence of each of the intervenors in respect of the same item.
4. Upon the completion of the evidence on all three items referred to in paragraph 2 of these Rules, the Board shall hear the oral argument of all parties.
5. Any party who wishes to obtain additional information from the Applicant in respect of matters raised in the Application, may request in writing that such information be provided and the Applicant shall, as soon as possible, make a written response to that request. Wherever possible, in order to expedite the Hearing, these requests and responses should be made before the commencement of the Hearing.

- 2 -

6. Where a party files and serves written direct evidence pursuant to paragraph 6 of Order No. RH-1-79, any other party may request in writing that the party filing such written direct evidence provide additional information respecting the matters dealt with in the direct evidence and the party to whom such a written request is made shall, as soon as possible, make a written response to that request.
7. Both the written request and the response thereto, referred to in paragraphs 5 and 6 of these Rules, shall be filed as exhibits at the hearing.
8. If any question arises upon which a decision of the Board may be required, a notice of motion with respect thereto shall be filed with the Secretary of the Board, and the motion shall be heard by the Board at the Hearing on a date to be fixed by it.
9. The order of appearances of parties and sequence of adducing evidence and conducting cross-examination shall be announced by the Board on or before the opening of the hearing.

NATIONAL ENERGY BOARD



OFFICE NATIONAL DE L'ÉNERGIE

ORDER NO. TG-2-79

IN THE MATTER OF the National Energy Board
Act and the Regulations made thereunder;
and

IN THE MATTER OF an application by TransCanada
PipeLines Limited (hereinafter called "the
Applicant") for certain orders respecting
tariffs and rates or tolls pursuant to sections
50 and 53 of the National Energy Board Act,
filed with the Board under File No. 1562-T1-12.

BEFORE:

L.M. Thur)	
Associate Vice-Chairman)	
	)	on Wednesday, the 18th day
J. Farmer,)	
Member	)	of July, 1979.
)	
J.R. Hardie)	
Member)	

UPON an application by the Applicant dated the 28th
day of February, 1979, inter alia, for orders under sections
50 and 53 of the National Energy Board Act fixing the just and
reasonable rates or tolls the Applicant may charge for or in
respect of gas sold by the Applicant in Canada and for
transportation services to Saskatchewan Power Corporation,
Consolidated Natural Gas Limited and Gaz Métropolitain, inc.,
and disallowing any tariffs or rates or tolls or portion
thereof that are inconsistent with the just and reasonable
rates or tolls so fixed, effective the 1st day of August, 1979;

- 2 -

AND UPON the Board having heard the evidence and submissions relating to the said application at a public hearing which commenced on the 15th day of May, 1979;

IT IS ORDERED THAT:

1. The Applicant shall charge, in respect of gas sold by it in Canada and in respect of its T-Service and Transportation Service, the rates and tolls specified in Schedule A hereto.
2. The Applicant's proposed tariff amendment in respect of the General Terms and Conditions of the said tariff, all as more particularly set forth in Exhibit 141 filed at the hearing of the said application and as amended so as to substitute the words "Canadian Imperial Bank of Commerce" for the words "Bank of Canada" where they appear in the said amendment, be and the same is hereby approved.

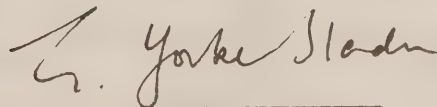
AND IT IS FURTHER ORDERED THAT:

3. The Applicant shall forthwith file with the Board and serve upon all parties to the hearing of this application, new tariffs, tolls and rates conforming with this Order.
4. Notwithstanding the filing of the said new tariffs, tolls and rates, the same shall remain suspended and be of no effect until the 1st day of August, 1979.

- 3 -

5. Those provisions of the Applicant's tariffs, tolls and rates, or any portion thereof, that are contrary to any order of the Board, including this Order, be and the same are hereby disallowed, such disallowance to be effective on the 31st day of July, 1979.

NATIONAL ENERGY BOARD



for Brian H. Whittle
Secretary

SCHEDULE A

TRANSCANADA PIPELINES LIMITED
RATES AND TOLLS FOR CANADIAN SALES, TRANSPORTATION & T-SERVICE
EFFECTIVE: 1 AUGUST 1979

<u>PARTICULARS</u>	<u>RATE SCHEDULE</u>	<u>TRANSPORTATION DEMAND RATE (\$/10³ m³/mo.)</u>	<u>TRANSPORTATION COMMODITY RATE (\$/10³ m³)</u>	<u>IMPUTED ALBERTA BORDER PRICE (\$/GJ)</u>
<u>SALES SERVICE</u>				
Saskatchewan Zone	CD	43.88	.378	141.297
	AOI	--	2.021	141.297
	SGS	--	3.985	141.297
	PS	--	69.090	141.297
	TWS	--	23.910	141.297
Manitoba Zone	CD	160.49	1.657	141.297
	AOI	--	4.255	141.297
	PS	--	69.090	141.297
	TWS	--	23.910	141.297
Western Zone	CD	258.76	2.711	141.297
	AOI	--	6.902	141.297
	PS	--	69.090	141.297
	TWS	--	23.910	141.297
Northern Zone	CD	408.87	4.307	141.297
	AOI-NDA*	--	10.079	141.297
	AOI-SSMDA**	--	13.940	141.297
	PS	--	69.090	141.297
	TWS	--	29.200	141.297
Eastern Zone	CD	510.23	5.366	141.297
	AOI	--	11.138	141.297
	ACQ	--	19.641	141.297
	PS	--	97.330	141.297
	TWS	--	30.970	141.297

T-SERVICE

<u>Gaz Métropolitain, inc.</u>	510.23	1.492
(Fuel Ratio 0.0732)		

TRANSPORTATION SERVICE

Saskatchewan Power Corporation

Bayhurst & Liebenthal	68.81	.671
Success	51.63	.487
Empress	74.99	.735
Herbert	14.77	.104
<u>Consolidated Natural Gas</u>	146.51	1.502

* Northern Delivery Area

** Sault Ste Marie Delivery Area

ORDER NO. TG-3-79

IN THE MATTER OF the National Energy Board
Act and the Regulations made thereunder;
and

IN THE MATTER OF an application by
TransCanada PipeLines Limited (hereinafter
called "the Applicant") for certain orders
respecting tariffs and rates or tolls
pursuant to sections 50 and 53 of the National
Energy Board Act, filed with the Board under
File No. 1562-T1-12.

BEFORE:

L.M. Thur,)	
Associate Vice-Chairman)	
	)	on Wednesday, the 18th day
J. Farmer,)	
Member	)	of July, 1979.
)	
J.R. Hardie,)	
Member)	

UPON an application by the Applicant dated the 28th day of February, 1979, inter alia, for orders under sections 50 and 53 of the National Energy Board Act fixing the just and reasonable rates or tolls the Applicant may charge for or in respect of gas sold by the Applicant in Canada and for transportation services to Saskatchewan Power Corporation, Consolidated Natural Gas Limited and Gaz Métropolitain, inc., and disallowing any tariffs or rates or tolls, or portion thereof, that are inconsistent with the just and reasonable rates or tolls so fixed, effective the 1st day of August, 1979.

- 2 -

AND UPON the Applicant having, in the said application, requested that the Board, by order, for accounting and rate-making purposes:

- (a) permit the Applicant to segregate and record variances in the cost for the actual quantities of lost and unaccounted for gas from those reflected in the Applicant's rates and tolls, with the balance of accrued variances including interest to be amortized from time to time through adjustments in future rates;
- (b) modify the accounting procedure prescribed on the 20th day of October, 1978, respecting the revaluation of inventories of gas owned by the Applicant and stored in underground storage in Ontario, so as to permit the deduction from any revaluation credit of storage charges and related carrying charges, with the net revaluation credit, if any, to be held for disposition in future rate proceedings; and
- (c) permit the Applicant to account for any disputed reassessment of its income taxes in a deferral account with related carrying charges on the deferred amount, with such deferred amounts to

3 -

be amortized from time to time in future rates once the status of a reassessment has been finalized;

AND UPON the Board having heard the evidence and submissions relating to the said application at a hearing which commenced on the 15th day of May, 1979;

AND UPON the Board having ordered, by Order No. TG-2-79, dated the 17th day of July, 1979, the Applicant to file, in respect of gas sold by it in Canada and in respect of its T-Service and Transportation Service, new tariffs, tolls and rates conforming therewith, to be effective the 1st day of August, 1979;

IT IS ORDERED THAT:

1. The Applicant's request for an order permitting the deferral of variances between the actual cost of lost and unaccounted for gas and that cost as reflected in rates, be and the same is hereby dismissed.
2. The Applicant's request for a modification of the accounting procedure respecting the revaluation of inventories of gas owned by the Applicant and stored in underground storage in Ontario so as to permit the deduction of storage charges and related carrying charges, be and the same is hereby dismissed.

- 4 -

3. The Applicant's request to defer disputed reassessments of its income taxes with related carrying charges, pending finalization of the status of such reassessments, be and the same is hereby dismissed.

NATIONAL ENERGY BOARD



for Brian H. Whittle
Secretary

TransCanada Pipelines Limited
Comparison of Components of Rate of Return and
Interest Coverage Previously Authorized, Applied For and Approved

	Previously Authorized			Applied For			Authorized in This Decision		
	Capital Structure	Cost Rate	Cost Component	Capital Structure	Cost Rate	Cost Component	Capital Structure	Cost Rate	Cost Component
	%	%	%	%	%	%	%	%	%
Funded Debt—Other	53.55	8.76	4.69	42.28	8.72	3.69	50.09	8.72	4.37
-Take or Pay	--	--	--	15.60	11.22	1.75	--	--	--
Unfunded Debt	2.34	10.00	.23	2.32	11.50	.27	2.97	11.50	.34
Preferred	6.36	7.40	.47	4.99	7.61	.38	5.91	7.61	.45
Common	<u>37.75</u>	14.20	<u>5.36</u>	<u>34.81</u>	14.75	<u>5.13</u>	<u>41.03</u>	14.00	<u>5.74</u>
	<u>100.00</u>			<u>100.00</u>			<u>100.00</u>		
Overall Rate of Return			<u>10.75</u>			<u>11.22</u>			<u>10.90</u>
Times Pre-Tax Interest Coverage			<u>3.37</u>			<u>3.5</u>			<u>3.3</u>

TRANSCANADA PIPELINES LIMITED
FUNCTIONAL DISTRIBUTION AND CLASSIFICATION OF AUTHORIZED COST OF SERVICE

	TOTAL	COST OF GAS	MISCELLANEOUS TRANSMISSION	METERING	FIXED	TRANSMISSION VARIABLE (Fuel)	VARIABLE (Other)
Cost of Gas Sold	\$1,600,372,805	\$1,600,372,805					
Transmission by Others	107,148,002		\$245,586		\$ 54,572,246	\$23,523,066	\$28,807,104
Operation and Maintenance	135,667,712			\$2,298,671	56,536,037	67,551,232	9,281,772
Depreciation	53,519,353			671,678	52,847,675		
Taxes Other than Income	14,999,545			61,923	14,937,622		
Miscellaneous Deferred Items	5,808,893				5,808,893		
Income Taxes	80,303,033			965,138	79,337,895		
Other Operating Income	(3,626,767)				(127,531)		(3,499,236)
Return @ 10.9%	147,826,551			1,801,578	146,024,973		
Total Cost of Service	\$2,142,019,127	\$1,600,372,805	\$245,586	\$5,798,988	\$409,937,810	\$91,074,298	\$34,589,640
Miscellaneous Revenue	(8,207,706)	(2,920,390)	(2,328)	(124,697)	(3,895,331)	(867,752)	(397,208)
NET COST OF SERVICE	\$2,133,811,421	\$1,597,452,415	\$243,258	\$5,674,291	\$406,042,479	\$90,206,546	\$34,192,432

DERIVATION OF THE IMPUTED ALBERTA BORDER PRICE1. Average Transportation Charge from the Alberta Border to the Eastern Zone in ¢/GJTransportation Rates for CD Service

Transportation Commodity Rate	\$ 5.366/10 ³ m ³
Transportation Demand Rate	\$510.23/10 ³ m ³ /Month
Average Transportation Charge per GJ for 37.47 MJ/m ³ Gas Taken at 100% Load Factor	
Average Transportation Charge ⁽¹⁾	59.089 ¢/GJ

2. Derivation of the Imputed Alberta Border Price Effective 1 August 1979

Toronto Reference Price ⁽²⁾	200.386 ¢/GJ
Less: Average Transportation Charge - Alberta Border to Eastern Zone	(59.089) ¢/GJ
Imputed Alberta Border Price	141.297 ¢/GJ

(1)
$$\frac{510.23 \times 100 \times 12}{365 \times 37.47} + \frac{5.366 \times 100}{37.47} = 59.089 \text{ ¢/GJ}$$

- (2) Toronto reference price of \$2.15 per MMBtu established effective 1 August 1979 pursuant to the Federal/Alberta agreement of 13 July 1979 under Section 50 of the Petroleum Administration Act.

NATIONAL ENERGY BOARD

OTTAWA, ONTARIO
KIA OE5



OFFICE NATIONAL DE L'ÉNERGIE

OTTAWA, ONTARIO
KIA OE5

File: D1562-T1-12

Mrs. Margaret A. Brown,
Solicitor,
TransCanada PipeLines Limited,
Commerce Court West,
Toronto, Ontario
M5L 1C2

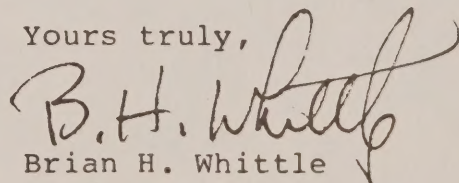
Dear Mrs. Brown:

I have been directed to inform you that the retirement of the corroded pipe replaced between MLV 57 and MLV 58 is to be treated as an extraordinary retirement.

It is the Board's understanding that the retirement of this pipe was treated by TransCanada as an ordinary retirement, and that the amount of \$120,023 is presently charged against NEB Account 105 (Accumulated Depreciation - Gas Plant). Accordingly, TransCanada is required to adjust its accounting records by debiting NEB Account 341 (Extraordinary Income Deductions) and crediting NEB Account 105 (Accumulated Depreciation - Gas Plant).

The above is in accordance with the Board's Reasons for Decision of July 1979.

Yours truly,


Brian H. Whittle

Secretary

